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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,153	08/16/2001	Alain Forestiere	PET-1947	1451

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EXAMINER

PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,153

Applicant(s)

FORESTIERE ET AL.

Examiner

J. Pasterczyk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,10,11 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,11 and 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/16/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. This Office action is in response to the preliminary amendment and IDS filed 8/16/01.
2. The drawings are objected to because they use the French words for “solid” and a comma instead of a decimal point. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The abstract of the disclosure is objected to because it states more what the material does not contain, i.e. the phosphate, phosphinate or phosphonate phases of phosphorus-oxygen moieties, rather than what it positively does contain. Correction is required. See MPEP § 608.01(b).
4. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no description at all in the specification of how one would use the present invention. The only description that appears even close states that this may be used as a catalyst; however, there is no description of what reactions may be catalyzed, what starting materials may be used, what conditions of time/temperature/pressure may be required, etc. Without concrete examples the specification is merely an invitation to experiment.
5. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention. There is no clear description in the specification regarding the meaning of “amorphous” or how one is to determine whether a material fits that description, not even in the working examples.

6. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims appear to require that phosphate groups not be present in the material, yet each working example discloses the presence of phenyl phosphate groups in the material made. These are mutually inconsistent.

7. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, “functionalized materials” are claimed, yet the claim recites what it not on the material rather than what is on the material to make it “functionalized”; without a positive recitation of what is on the material nobody would know whether they are infringing on these claims. The variable M is undefined other than its being an element. Lines 4-5 leave it unclear as to what is bonded to what; is the oxygen atom from the mineral oxide or the phosphorus compound used to make the present material? Is the phosphorus atom bonded directly to the mineral oxide or via an oxygen atom or via the monomolecular layer of organic groups? Is the organic phosphorus group bonded to the mineral oxide via an oxygen atom as the first two lines suggest? It even can be read that these four groups form some sort of cyclic structure. As noted

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above, the last two lines recite what is not on the material rather than what is, hence it is unclear what form the phosphorus-containing groups actually take. The term "mineral oxide" also appears to be a misnomer since a mineral is a naturally occurring chemical entity in itself, often containing oxide oxygen entities.

In claim 2 it is not clear what is meant by "distanced".

In claim 10, l. 2-3, "of at least one mineral oxide of an element M" may be better located after "suspension" in l. 2.

In claim 11, l. 5, change "formed by" to --consisting of-- for clear closed Markush language. In l. 11 insert --the group consisting of-- after "selected from" for the same reason.

In claim 16, l. 2, change "formed" to --consisting of--, and "said sulphonc acid groups" lacks antecedent basis.

In claims 18 and 19 the variable l is not defined.

In claim 20 it is not clear if the hydrocarbon chain of 1-24 atoms is the same as the monomolecular layer of organic groups found in claim 1.

In claim 22, the current terminology uses Arabic numerals for the groups in the periodic table since it is less ambiguous than the old Roman numeral terminology, in l. 1 change "designates" to --is-- and after "element" insert --selected--, and in l. 2 change "or" to --and--.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

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has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Wieserman et al., USP 4,994,429 (hereafter referred to as Wieserman).

Wieserman discloses the invention as claimed (abstract; col. 2, l. 28-34; col. 3, l. 52-62; col. 5, l. 25-29; col. 6, l. 35 to col. 7, l. 15; col. 8, l. 1 to col. 9, l. 20; col. 10, l. 10 to col. 11, l. 4).

10. Claims 1, 2, 10, 11 and 16-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lindoy et al., USP 6,129,752 (hereafter referred to as Lindoy).

Lindoy discloses the invention as claimed (abstract; col. 1, l. 61 to col. 3, l. 31).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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2/19/04



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